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Planning process for new PRI and E.164 to DSN routing.

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Step 1. Select an available span that is capable of PRI with B8ZS line code and ESF framing. Refer to tables CARRMTC and LTCPSINV.

Step2. Select a customer group, subgroup and NCOS that will be used for the retranslation of the call from E.164 to DSN. Any groups and NCOS's that have DSN access should work.

Step 3. Identify the routine precedence DSN access code for the NCOS selected.

Step 4. Identify a standard pretranslator, STDPRTCT (STDPRT), that has at least the 502 NPA available for use. If no existing translator has 502 available, a new translator will need to be created.

Step 5. Identify tuples in XLAPLAN and LINEATTR that reference the standard pretranslator that will be used. Also check that the RATEAREA fields match in both tuples. If no existing tuples meet the criteria, then new tuples will need to be created.

Step 6. Identify available tuple indexes in tables IBNRTE and DIGMAN.

Step 7. Select an available LTID. Refer to Table LTDEF.

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Planning process for DSN to E.164 routing.

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Step 1. Identify the HNPACONT (HNPACODE) that will translate the incoming DSN call.

Step 2. Read the IMPROTANT!!!! note following these steps

Step 3. Idendify available indexes in tables AVRTDATA and AVTDATA

Step 4. Identify the AVTDATA tuple that sends the 502 NPA to the DSN.

Step 5. Identify the AVTDATA tuple used to terminate calls from the DSN on local  
SL-100 lines.

IMPORTANT!!!!

The travers shown in this set of instructions are using different HNPACONT (HNPACODE) tables for E.164 to DSN calls and DSN to E.164 calls.

However, most switches that are installing backside IMUX PRI's are routing the entire 502 NPA out to the DSN. They also translate both incoming and outgoing DSN calls in the same HNPACONT (HNPACODE). If this is the situation, the HNPACONT (HNPACODE) must be changed in order to route part of the 502 NPA to the IMUX PRI, part to the DSN and part to terminate on local SL-100 lines.

Example: Home NPA 502, Home Office code 666, 5026661000 - 5026661010 sent to IMUX

!!!!!!!!!!!!!! WARNING !!!!!!!

DSN INCOMING AND OUTGOING CALLS CAN FAIL IF THIS IS DONE WRONG

!!!!!!!!!!!!!! WARNING !!!!!!!

BEFORE:

502 502 atv 3

AFTER:

5020 502665 ATV 3	Sent to DSN
5026660 50266609 ATV 1	Terminates on SL-100 lines
502666100 5026661010 ATV 2	Sent to IMUX PRI
5026661011 5026669 ATV 1	Terminates on SL-100 lines
502667 5029 ATV 3	Sent to DSN

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As shown below, the following tables need to be datafilled in order to create the backside trunk group to the IMUX:

CARRMT, LTCPSINV, CLLI, TRKGRP, TRKSGRP, TRKMEM, LTMAP, LTDEF  
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```
clliref search adl
Entering profile...
... Profile Ends
CLLI "ADL" occurs in the following tuples:
Table    Key: Sub  Tuple
-----  -----> -----
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```

CLLI          ADL 233 24 ADL
TRKGRP       ADL IBNT2 0 NPDGP NCIT MFS6 0 MIDL 2 N ANSDISC 0 Y N N N
              N N N 0 2 N 0 0 0 0 N N N N N N N N NATL
              (LTID ISDN6 129) $
CLLIMITCE    ADL ADL 5 10 15 NSS 0 0 N N (23)
TRKSGRP     ADL 0 DS1SIG ISDN 8 12 87Q931 2 N STAND NETWORK PT_PT
              USER N UNEQ 160 N DEFAULT LTC 4 12 24 64K HDLC $ $
TRKMEM       ADL 1 0 LTC 4 12 1
TRKMEM       ADL 2 0 LTC 4 12 2
TRKMEM       ADL 3 0 LTC 4 12 3
TRKMEM       ADL 4 0 LTC 4 12 4
TRKMEM       ADL 5 0 LTC 4 12 5
TRKMEM       ADL 6 0 LTC 4 12 6
TRKMEM       ADL 7 0 LTC 4 12 7
TRKMEM       ADL 8 0 LTC 4 12 8
TRKMEM       ADL 9 0 LTC 4 12 9
TRKMEM       ADL 10 0 LTC 4 12 10
TRKMEM      ADL 11 0 LTC 4 12 11
TRKMEM      ADL 12 0 LTC 4 12 12
TRKMEM      ADL 13 0 LTC 4 12 13
TRKMEM      ADL 14 0 LTC 4 12 14
TRKMEM      ADL 15 0 LTC 4 12 15
TRKMEM      ADL 16 0 LTC 4 12 16
TRKMEM      ADL 17 0 LTC 4 12 17
TRKMEM      ADL 18 0 LTC 4 12 18
TRKMEM      ADL 19 0 LTC 4 12 19
TRKMEM      ADL 20 0 LTC 4 12 20
TRKMEM      ADL 21 0 LTC 4 12 21
TRKMEM      ADL 22 0 LTC 4 12 22
TRKMEM      ADL 23 0 LTC 4 12 23
TRKNAME     233 ADL
LTMAP        ISDN6 129 CLLI ADL (TEI 0) $
=====
Total of      29
occurrences of ADL

```

TABLE: CARRMTC  
>pos ltc mcipri

LTC	MCIPRI	255	255	DS1 NT6X50AB MU_LAW ESF B8ZS CRC NILDL
				N 250 1000 50 50 150 1000 4 6 1999 800
				100 511 4 255

TABLE: LTCPSINV  
>pos ltc 4

LTC	4
N (0 DS1 DEFAULTB N)	(1 DS1 DEFAULTB N)
(2 DS1 DEFAULTD N)	(3 DS1PRA 64KPRI N 0 NIL \$)
(4 DS1PRA 64KPRI N 0 NIL \$)	(5 DS1PRA 64KPRI N 0 NIL \$)
(6 DS1PRA 64KPRI N 0 NIL \$)	(7 DS1 DEFAULT N)
(8 DS1 DEFAULTB N)	(9 DS1PRA 64KPRI N 0 NIL \$)
(10 DS1 DEFAULT N)	(11 DS1PRA 64KPRI N 0 NIL \$)
(12 DS1PRA MCIPRI N 0 NIL \$)	(13 DS1 DEFAULT N)
(14 DS1PRA 64KPRI N 0 NIL \$)	
(15 DS1PRA 64KPRI N 0 NIL \$)	
(16 DS1PRA 64KPRI N 0 NIL \$)	

```
(17 DS1PRA 64KPRI N 0 NIL $)
(18 DS1PRA 64KPRI N 0 NIL $)
(19 DS1PRA 64KPRI N 0 NIL $) $
```

TABLE: LTDEF  
ISDN6 129 B PRA 23 23 11 12 NTNAPRI V1 NIL (NOPMD ) \$

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```

The following traver shows the routing translations necessary to bring a call in from the IMUX and tandem out to DSN. The following tables need to be datafilled:

XLAPLAN, RATEAREA, LINEATTR, LTCALLS, STDPRTCT (STDPRT), IBNRTE, DIGMAN

This is only an example. Most switches already have tuples programmed in XLAPLAN, RATEAREA and LINEATTR that can be used for the new routing. All tuples used in these 3 tables should reference the same translator in STDPRTCT. Some switches have available standard pretranslators that can be used for the new NPA's that need to be entered (502-509). If not, a new translator will need to be created in XLAPLAN

and STDPRTCT. In table IBNRTE enter a customer group, subgroup and NCOS that will be used for the retranslation into a DSN call. IN table DIGMAN, enter the routine precedence DSN access code for the customer group, subgroup and NCOS defined in table IBNRTE.

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```
>traver tr adl 5027777777 b
TABLE TRKGRP
ADL IBNT2 0 NPDGP NCIT MFS6 0 MIDL 2 N ANSDISC 0 Y N N N N N N 0 2 N 0 0 0 0 N N
N N N N N N NATL (LTID ISDN6 129) $
TABLE LTCALLS
ISDN6 129 PUB XLAIBN 1 600_SP16_16 NLCA_NILLA_1 MFS6 0 2 $
TABLE CUSTSTN
TUPLE NOT FOUND
TABLE OFCVAR
AIN_OFFICE_TRIGGRP NIL
TABLE LINEATTR
1 IBM NONE NT 0 0 NILSFC 0 NIL NIL 00 600_SP16_16 NLCA_NILLA_1 $
LCABILL OFF - BILLING DONE ON BASIS OF CALLTYPE
TABLE XLAPLAN
600_SP16_16 NSCR 600 SP16 NONE N $ $
TABLE RATEAREA
NLCA_NILLA_1 NLCA NIL NILLATA $
TABLE STDPRTCT
SP16 ( 1) ( 0) 0
. SUBTABLE STDPRT
```

```
. 502 509 T DD 0 IBNRTE 502 7 10 NONE
. . TABLE IBNRTE
. . 502 RX EO5 0 2 502 $
. . . TABLE DIGMAN
. . . 502 (INC 94)
. . . EXIT TABLE DIGMAN
. . EXIT TABLE IBNRTE
. SUBTABLE AMAPRT
. KEY NOT FOUND
. DEFAULT VALUE IS: NONE OVRNONE N
LNP00100 SOC Option is IDLE.
AIN Info Collected TDP: no subscribed trigger.
AIN Info Analyzed TDP: no subscribed trigger.
```

+++ TRAVER: SUCCESSFUL CALL TRACE +++

#### DIGIT TRANSLATION ROUTES

1 4FDZ	405027777777	ST
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TREATMENT ROUTES. TREATMENT IS: GNCT  
1 ICAANN  
2 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

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This traver shows what happens in the background during retranslation from E.164 to DSN. Notice that it is nothing more than a subscriber from the defined customer group and NCOS placing a 502 DSN call by using it's defined DSN routine precedence access code.

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```
>traver 1 6666050 945027777777 b
TABLE KSETLINE
HOST 00 0 00 02 1 DN Y 6666050 MFS6 0 2 600 (3WC) (RAG) (LNR) (AVT) (PREMTBL) $
MBS
TABLE DNATTRS
TUPLE NOT FOUND
TABLE DNGRPS
TUPLE NOT FOUND
TABLE KSETFEAT
TUPLE NOT FOUND
TABLE CUSTSTN
TUPLE NOT FOUND
TABLE OFCVAR
AIN_OFFICE_TRIGGRP NIL
AIN Orig Attempt TDP: no subscribed trigger.
TABLE NCOS
MFS6 2 0 0 ALL_FO ( XLAS P602 NXLA NDGT) ( CRL 1 BLOCKED) ( OHQ 0 ANNCEMENT) (
CBQ 3 3 Y 2) ( ACR N) ( AVP 1)$
TABLE CUSTHEAD: CUSTGRP, PRELIMXLA, CUSTXLA, FEATXLA, VACTRMT, AND DIGCOL
```

```
MFS6 NXLA CT6 FT1 0 DCN1
TABLE DIGCOL
DCN1 9 RPT
TABLE IBNXLA: XLANAME P602
P602 94 NET N N 2 N NDGT N Y AVN R 606 LCL $
TABLE DIGCOL
NDGT specified: digits collected individually
TABLE SDCOS
MFS6 1 O N N N Y 0
TABLE HNPACONT
606 Y 873 10 ( 4) ( 1) ( 0) ( 0) 2 $
. SUBTABLE HNPACODE
. 502 502 ATV 1
TABLE AVTDATA
1 OSRTE Y 1 4FDZ 0 N N N
TABLE AVRTDATA
TUPLE NOT FOUND
TABLE AVRTDATA
1 T1 N N S 4FDZ N N 0 N N
AIN Info Collected TDP: no subscribed trigger.
AIN Info Analyzed TDP: no subscribed trigger.
```

```
+++ TRAVER: SUCCESSFUL CALL TRACE +++
```

#### DIGIT TRANSLATION ROUTES

1 4FDZ	405027777777	ST
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TREATMENT ROUTES. TREATMENT IS: GNCT  
1 ICAANN  
2 LKOUT

```
+++ TRAVER: SUCCESSFUL CALL TRACE +++
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This traver shows the routing translations necessary to tandem a call from DSN  
to to the new IMUX PRI. Tables that need to be datafilled:

AVRTDATA, AVTDATA, HNPACONT (HNPACODE)

Simply create new AVTDATA and AVRTDATA tuples. Enter the CLLI of the new IMUX  
PRI  
in the AVRTDATA tuple. Refer back to the Planning Process for DSN to E.164  
routing for information on HNPACONT (HNPACODE).  
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```
>traver tr 4fdz 405025557777 b
TABLE TRKGRP
4FDZ AVOVS 0 NPDGP NCIT 2W MIDL 505 500 Y Y (LTID ISDN6 104) $
```

```
TABLE HNPACONT
500 Y 32 2 ( 0) ( 1) ( 0) ( 0) 3 $
. SUBTABLE HNPACODE
. 502555 502555 ATV 555
TABLE AVTDATA
555 HGRTE N 555 ADL 0 N N N
TABLE AVRDATA
TUPLE NOT FOUND
TABLE AVRDATA
555 T1 N N S ADL N N 0 N N

+++ TRAVER: SUCCESSFUL CALL TRACE +++
```

#### DIGIT TRANSLATION ROUTES

```
1 ADL N CDN E164 NA 5025557777 NIL_NSF BC SPEECH

TREATMENT ROUTES. TREATMENT IS: GNCT
1 ICAANN
2 LKOUT
```

```
+++ TRAVER: SUCCESSFUL CALL TRACE +++
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#### Suggested programing sequence

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1. Program the new IMUX PRI
  - A. CARRMTC (If necessary)
  - B. LTCPSINV (If necessary)
  - C. CLLI
  - D. TRKGRP
  - E. TRKSGRP
  - F. TRKMEM
  - G. LTDEF
  - H. LTMAP
2. Program E.164 to DSN routing
  - A. DIGMAN
  - B. IBNRTE
  - C. XLAPLAN (If necessary)
  - D. RATEAREA (If necessary)
  - E. LINEATTR (If necessary)
  - F. LTCALLS
  - G. STDPRTCT (STDPRT)
3. Program DSN to E.164 routing
  - A. AVTRDATA
  - B. AVTDATA
  - C. HNPACONT (HNPACODE)

